



FIG. 1

FIG. 2

db time	count(*)	grouped rows	exec count	cube or table name	characteristics	date	join conditions
22	1000	10	1	Z	A C	xxx	aaa,bbb,cc
10	600	20	1	Z	A B C	yyy	...
20	900	30	1	Z	A B C	xxx	...
5	400	10	1	Z	A B	vvv	...
15	4000	4	1	Z	A	xxx	...
12	3000	3	1	Z	A	yyy	...
20	5000	5	1	Z	A	xxx	...
1000	100000	50000	1	Z	A B C D E	vvv	...
30	1500	30	1	M	W X	xxx	...
40	2000	40	1	M	W X	yyy	...
40	600	60	1	M	W X Y	vvv	...
50	500	50	1	M	W X Y	yyy	...
100	600	10	1	M	W	xxx	...

FIG. 3

db time	count(*)	grouped rows	exec count	cube or table name	characteristics	query group ratio	join conditions
22	1000	10	1	Z	A C	100	aaa,bbb,ccc
30	1500	50	2	Z	A B C	30	...
5	400	10	1	Z	A B	40	...
47	12000	12	3	Z	A	1000	...
1000	100000	50000	1	Z	A B C D E	2	...
70	3500	70	2	M	W X	50	...
90	1100	110	2	M	W X Y	10	...
100	600	10	1	M	W	60	...

FIG. 4

db time	count(*)	grouped rows	exec count	cube/ table	characteristics	group ratio	Ncount saved	time saved	join conditions
69	13000	22	4	Z	A C	100	130	68.31	
104	14900	82	7	Z	A B C	30	497	100.53	
52	12400	22	4	Z	A B	40	310	50.7	
47	12000	12	3	Z	A	1000	12	46.9	
170	4100	80	3	M	W X	50	82	166.6	
260	5200	190	5	M	W X Y	10	520	234	
100	600	10	1	M	W	60	10	98.3	
1104	114900	50082	8	Z	A B C D E	2	57450	552	

FIG. 5

db time	count(*)	grouped rows	exec count	cube/ table	characteristics	group ratio	Ncount saved	time saved	time- size
69	13000	22	4	Z	A C	100	130	68.31	6831
104	14900	82	7	Z	A B C	30	497	100.5	3016
52	12400	22	4	Z	A B	40	310	50.7	2028
47	12000	12	3	Z	A	1000	12	46.9	46953
70	4100	80	3	M	W X	50	82	166.6	8330
260	5200	190	5	M	W X Y	10	520	234	2340
100	600	10	1	M	W	60	10	98.3	5900
1104	114900	50082	8	Z	A B C D E	2	57450	552	1104

FIG. 9

db time	count(*)	grouped rows	exec count	cube/ table	characteristics	actual group ratio	predicted time	time saved	time- size est.
9	380	95	3	WXaggr	W X	48	205.5	196.5	9432

FIG. 6

db time	count(*)	grouped rows	exec count	cube or table name	characteristics	group ratio
22	1000	10	1	Z	A C	100
30	1500	50	2	Z	A B C	30
5	400	10	1	Z	A B	40
1000	100000	50000	1	Z	A B C D E	2
90	1100	100	2	M	W X Y	10

FIG. 7

db time	count(*)	grouped rows	exec count	cube/ table	characteristics	group ratio	Ncount saved	time time
22	1000	10	1	Z	A C	100	10	21.78
57	2900	70	4	Z	A B C	30	97	55.10
5	400	10	1	Z	A B	40	10	4.588
90	1100	110	2	M	W X Y	10	110	81
1057	102900	50070	5	Z	A B C D E	2	51450	528.5

FIG. 8

db time	count(*)	grouped rows	exec count	cube/ table	characteristics	group ratio	Ncount saved	time- size
22	1000	10	1	Z	A C	100	10	21.78 2178
57	2900	70	4	Z	A B C	20	97	55.10 1653
5	400	10	1	Z	A B	40	10	4.88 195
90	1100	110	2	M	W X Y	10	110	81 810
1057	102900	50070	5	Z	A B C D E	2	51450	528.5 1057